



CIRCBUILT: CIRCULAR BIO-BASED BUILDING PRODUCTS FROM LIGNOCELLULOSIC WASTE FOR SUSTAINABLE CONSTRUCTION



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CIRCBUILT (EU-grant ID-101212747, 2025-2028) aims to transform underutilised lignocellulosic residues from forest industries, agricultural, agro-food into high-value bio-based construction materials, supporting the transition towards a circular and climate-neutral built environment. Addressing the building sector's significant environmental footprint, the project develops innovative bio-based building blocks, including foam-formed lignocellulosic materials, thermochromic nanocellulose-based films and coatings, and formaldehyde- and isocyanate-free bio-based binders. These innovations will be integrated into four 100% bio-based construction products (TRL 5 by the end of project): thermal insulation panels, construction panels, adaptive cooling windows, and indoor acoustic panels. By creating resource-efficient and scalable value chains based on secondary biomass streams, CIRCBUILT promotes circularity, reduces dependence on fossil-based materials, and enables the production of high-performance building products with lower environmental impact. The project further incorporates the principles of the New European Bauhaus by combining sustainability, functionality, inclusivity, and aesthetic design to accelerate the adoption of innovative bio-based solutions in the construction sector.

